UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

DEC 19 2011

Dave Phelps, Supervisor, Construction Permit Section
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, Iowa 50324

RE: Interstate Power and Light (IPL) – Ottumwa Generating Station (OGS) Prevention of Significant Deterioration (PSD) Permit Comments

Dear Mr. Phelps:

On November 10, 2011, the United States Environmental Protection Agency (EPA) Region 7 received notification of the Iowa Department of Natural Resources' (IDNR) intent to issue a PSD construction permit to IPL to implement the Air Quality Control Systems (AQCS) and Comprehensive Asset Management Program (CAMP) project at the OGS facility in Ottumwa, Iowa. We have completed our review of the draft permit and have the following comments.

Comment 1 – Heat Input Correction

As part of the PSD permit application, IPL requested that IDNR correct the heat input for Unit 1 Boiler from 6,370 to 8,669 MMBtu/hr. IPL claimed that the heat input listed in the initial PSD permit was a guaranteed minimum and was only a description of the unit and not an enforceable permit condition. EPA Region 7 has reviewed the documentation provided by IPL but has not conducted a rigorous analysis of changes, if any, made to the boiler since it was first constructed. As a consequence, IPL and IDNR should not infer that EPA necessarily concurs with IPL's interpretation that the heat input for Unit 1 Boiler has remained constant since the initial PSD permit was issued.

Comment 2 – Previous Air Dispersion Modeling Analysis

Another issue potentially impacted by this heat input correction is related to any past air dispersion modeling conducted on Unit 1 Boiler. In a letter from Alliant Energy to the IDNR dated July 12, 2011, IPL stated that the heat input used for the 1976 SO_2 and PM modeling was 7,010 MMBtu/hr. Since the proposed heat input rate of 8,669 MMBtu/hr exceeds the 1976 modeled heat input rate, this correction raises questions about whether the 1976 air dispersion modeling remains protective of the air quality. To the extent the 1976 modeling results were close to the applicable NAAQS or increment and the heat input correction results in a higher modeled emission rate, IDNR should consider whether it is appropriate to true up the modeling to assure that the higher heat input is also protective of the NAAQS and increment.

Comment 3 – "Project Netting"

The AQCS component of IPL's project involves the installation and use of new pollution control systems. Emissions from the facility will generally decrease as a result of the AQCS projects. The CAMP component involves plant efficiency projects. Emissions from the facility will generally increase as a result of the CAMP projects. It appears that IPL evaluated the project emission calculation (commonly referred as "Step 1" of the PSD net emission increase calculation) by combining both the increases and the decreases. "Step 2" of the PSD net emission increase calculation includes the project emission increases along with all creditable increases and decreases from the facility. When both increases and decreases are considered in step 1, the term "project netting" has been applied. As EPA described in a letter to HOVENSA, L.L.C., dated March 30, 2010, *re: HOVENSA Gas Turbine Nitrogen Oxides (GT NOx) Prevention of Significant Deterioration (PSD) Permit Application – Emission Calculation Clarification*, project netting is not allowed under the PSD regulations. EPA recommends IDNR re-evaluate the net emissions increase from this project, including all contemporaneous increases and decreases from the plant, without considering emission decreases in step 1 of the PSD net emission increase calculation.

Comment 4 – Greenhouse Gas (GHG) BACT Limit Compliance Demonstration Method

In the BACT Emission Limits Table on Page 5, the BACT carbon dioxide equivalent (CO_2e) emission limit is 8,000,325 tons per year. Although the permit requires a carbon dioxide (CO_2) CEM and an initial stack test for methane (CH_4) and nitrous oxide (N_2O), the permit should include the specific calculation method that IPL is required to use to demonstrate compliance with the BACT CO_2e emission limit. For example, will the initial stack tests be used to develop site specific emission factors for CH_4 and N_2O?

Comment 5 – Incorrect Regulatory and Permit Citations

The draft permit contains a few incorrect regulation citations related to NSPS Subpart D. The correct citations were provided to IDNR informally during the public notice period. Also, operating condition monitoring 15.L. should refer to operating condition monitoring 15.K. rather than 15.J.

We appreciate the opportunity to provide what we hope you will find to be constructive comments. Please contact David Peter at (913) 551-7397 if you have any questions or comments regarding this letter.

Sincerely,

Mark A. Smith, Chief
Air Permitting and Compliance Branch
Air and Waste Management Division